I: Conzemius M-4, 5 (1921) 1932
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handles.[14] These conditions are not yet apparent on the hands of children.

HAIR.—All these Indians have an abundance of hair growth extending very low over the forehead, but it is very scarce on the other parts of the body. The hair is usually black, and very straight and coarse, but occasionally hair with very long low waves may be met with among the pure Indians. Gray and white hair occurs sometimes but not by far as frequently as among the white race. Baldness is practically unknown. Beard growth is very scarce, while chest hair is totally absent among the pure Indians.

LONGEVITY.—There are no reliable figures to be obtained regarding the age of the older Indians. Very few of them seem to have passed their sixtieth or seventieth birthday; still during the years 1917–1922 the writer met a number of Indians who were about 4 to 6 years old at the great eruption of the volcano Cosegüina on the Bay of Fonseca in 1835. This catastrophe, which was accompanied by great earthquakes, is still spoken of by these Indians as the "Great Darkness" (M.: *tikmya-tara;* S.: *puk-sani, puk-barak*);[15] a thick rain of ashes poured over the coast at the time and the sun was as invisible as at night.

DEFORMITIES.—In former days deformed children were not allowed to grow up; they were either buried alive or left to starve. This accounts for the rare cases of deformities encountered among these Indians. Only the strong and healthy being allowed to grow up and produce children, there is little variety of physical and mental development. Even were such a deformed child allowed to grow up, it would not easily find a mate and would die without leaving any children behind. In civilized countries deformities are propagated, as such people will find someone to marry them if they have fortune.

If an Indian has some deformed limb, either brought with it into the world or the result of an accident, he will secrete it as much as possible from the sight of other people, as such is considered a great disgrace. It would be an insult to ask him to show it or to even refer to it.[16] In case of a dispute among Indians one will immediately pick out the weak points in the personal appearance of his adversary.

[14] See the illustration given by Schultz (69).

[15] The abbreviations for the tribal names used in the present study are the following: M.=Miskito; S.=Sumu; T.=Twahka; P.=Panamaka; U.=Ulwa.

[16] At the Sansan village on Rio Coco the writer knew a Miskito who had lost several fingers on one hand through an accident at the gold mines of Pispis; from that time on he always carried a bandage around the mutilated hand. In the same village a young boy, having lost several toes, was continually wearing a shoe on that foot, although the other foot was always bare.

1: Conzemius M-4, 5 (1921) 1932
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826 heard the peculiar sound produced by two trees rubbing against each other during high wind.

842 STERILITY AND ABORTION.—Sterility is considered a disgrace, and the average husband will abandon his wife if she is unable to bear children. Abortion and prevention of pregnancy are accomplished by the use of certain herbs. In general the Indian woman is very prolific, but infant mortality is also very high.

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847 INFANTICIDE.—In former days babies of the female sex were often exposed and left to die, as they were supposed to bring ill luck. Male children are always received with great joy, which the father manifests by shooting off his gun. Deformed children were buried alive in olden days, as they were supposed to be possessed by an evil spirit, or to have been begotten by such one. A similar belief is held by many other tribes in both Americas and accounts for the total absence or scarcity of crippled persons in such regions.

847 Twins were also exposed, as they were said to be a proof of the wife's disloyalty to her husband; the latter considered that only one
845 of the two infants could possibly be his. If twins were of different sex the female was always killed. Lehmann (c: I, 405) states among the Miskito the red dog (*pdûan*) is the master of the twins, and that for that reason these Indians whip dogs at the birth of twins (*pdûnki*), but this report needs confirmation.

854 CHILD CARRYING.—The women carry their children in a long cloth which they sling over the back, tying the two ends together in front at the breast. This way the mother is not prevented from following her usual occupation, as both her hands are left free, while the child is firmly secured in a safe and comfortable position. The prevalence of bowlegs among these Indians may possibly be ascribed to this manner of carrying the infants.

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855 CARE OF CHILDREN.—The Indian child receives little attention from its parents, yet it rarely cries. The parents have, however, great patience toward their offspring, and they seldom chastise a naughty child. Should they, however, lose their patience and seize the whip, they may administer fearful beatings, but such cases are extremely rare. Lullaby songs are rarely heard, but the parents tell their offspring fables, legends, and fairy tales.

862 The last child is not generally weaned until the fourth year and sometimes even longer. I have observed cases among the Miskito where the young boys alternated their mother's breast with their father's tobacco pipe.

868 EDUCATION.—As the child grows up it is made acquainted with the occupations of its parents. The boy accompanies his father on hunting and fishing journeys as soon as he is strong enough to do so. The father makes toys for him, as diminutive canoes and paddles; later he obtains small bows and arrows in order to practice shooting at birds

3: Pijoan D-5 (ca. 1945) 1946
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comparison. The dietary in urban areas of coastal ports is predominantly one of imported and home grown cereal grains, wereas the river Indians consume a greater quantity of meats and fresh fruits. On the basis of the investigation by Roberts[33] it may be presumed that the variation in diet may account for the impairment of growth of coastal Indians. In specific physical anthropology there is sufficient reference elsewhere (vide Schultz[36]).

The Miskito Indians have an abundance of hair growth extending low over the forehead; it is scarce on other parts of the body. The hair is commonly black and very straight, although several Indians were noted who had reddishbrown (a metallic auburn) shade of hair. Gray and white hair rare and beard growth is very scarce. Chest and pubic hair is absent among pure Indians.

Although there are no accurate figures dealing with longevity the impression gained was that once an Indian lived to be over twenty years of age he had good chances for old age. Conzemius[1] in 1922 met a number of Indians who were young children during the volcanic eruption of Coseguina on the bay of Fonseca in 1835. Our survey revealed a number of Indians who remembered missionaries who had been in the territory sixty or seventy years ago. The Indians themselves informed us that many die between the ages of fifty and sixty years of age, with the chief cause of death being the fever (malaria). As will be shown, infectious disease takes a heavy toll of life during infancy and in early senescence. It is to be noted that the situation may change and the death rate in later life may increase. In former days sickly and deformed children were either buried alive or starved to death. Only the strong and healthy were allowed to grow up. Today there is no such control; Indians with deformities will secrete them or bandage the part involved; tolerance to diseased people has increased.

GENERAL CUSTOMS OF THE MISKITO

Today the men wear loose cotton shirts *(prak)* and trousers *(transis)*; the shirt tails are usually not tucked in. The older boys wear a similar garment but commonly among youngsters the dress is chiefly a loin or breech cloth *(palpura)* or nothing at all. Many of the women wear dresses *(prak)* although some of them and the girls wear a piece of cloth *(kwaluntara)* which is wrapped about the hips and extends

[33] Roberts, L. J.; Blair, R.; Lenning, B., and Scott, M. Effect of a milk suplement on the physical status of institutional children: I. Growth in height and weight (pp. 287-300), II. Ossification of the bones of the wrist (pp. 494-509), III. Progress of dental caries (pp. 805-823). Amer. Jour. Dis. Children, 1938, 56.

3: Pijoan D-5 (ca. 1945) 1946
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[164] sease debilitates the population, reduces the activity and energy of the workers, depresses the intelligence of the children and diminishes fecundity. Since the Miskito coast abounds in mosquitoes especially those that carry the disease, it is only reasonable that malaria constitutes a major public health problem of the area.

In the Coco Basin, most of the inhabitants are either in the throes of malaria, in a period of remission or have had the disease: the exact status being difficult to differentiate. A swelling of the spleen, anemia, fever are most commonly attributed to malaria *(Wrih)*. For malarial [757] fevers the bark of certain trees are administered, particularly copalchi *(Cinchona sp.)* The stricken person is enveloped in *tunis* blankets with hot stones placed at his feet, forthwith he is often taken to the river and given a cold bath.

The high incidence of malaria is due to two reasons, the first being the large numbers of anopheline mosquitoes capable of transmitting the disease and secondly the numerous sources of host reservoirs for the parasite. Thus the infected and the infectors are numerous. The higher death rates (impression) occur among the very young and the aged. At San Carlos the death rate from malaria, between the ages of 2 to 10 years of age, is approximately 12 per cent. Most of the [165] aged, we were told, died of fever and the older people on occasion sing this chant:

[539] *"The fever returns and I shall die. I drink medicine put it on my body. The fever will kill me and I shall die. The medicine does not help me. I have been good to my family. I have had the fevers. This time it (the fever) will take me."*

[122] Our investigations were primarily directed to children because they, not being at work, were easier to secure and examine and it was easier to determine exactly the incidence of autochthonous malaria in each locality. Furthermore the children rarely leave the community and among them are fewer imported cases. However certain of the older people were examined and these are included in this report.

Children according to Brumpt[88] may be considered as a reservoir of the disease. If such is the case, then, San Carlos community becomes an ideal location for the preservation and increase of the disease. The possible reason for the lower incidence of malaria at Saulpaca is that within a few miles of this community Dr. David Thaeler maintains his clinic and hospital. Thaeler has furthermore been instrumental in teaching the people the principles of swamp drainage and malaria control. It would be reasonable to expect that in

[88] Brumpt. E. Precis de Parasitologie, 4th ed., 1927, Paris.